

ABSTRACT

A crankshaft is mounted in a fixture which rotates the crankshaft about its longitudinal axis and which tilts the crankshaft about a horizontal axis to allow machining of holes such as oil holes at various rotational positions and at various tilt angles to the longitudinal axis. Preferably, a cutting tool moves along a horizontal plunging axis Z to machine the depth of the hole and moves along a horizontal X axis to machine holes on or offset from the longitudinal axis. The cutting tool may also be shifted vertically along a Y-axis. Preferably, a pair of crankshafts are mounted side-by-side in the fixture to machine two crankshafts simultaneously. The fixture is mounted for tilting by turnions. The pair of crankshafts are spun about the longitudinal axes by a motor carried on the tiltable fixture. An automatic tool changer and loading apparatus store cutting tools and associated guide bushings for the cutting tools.

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